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L2: Entry 2 of 2

File: JPAB

Nov 6, 2001

PUB-NO: JP02001310491A  
DOCUMENT-IDENTIFIER: JP 2001310491 A  
TITLE: IMAGING METHOD

PUBN-DATE: November 6, 2001

## INVENTOR-INFORMATION:

NAME

COUNTRY

KONNO, TAKESHI

HATAKEYAMA, AKIRA

KAWAGOE, SHIGEKI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP2000129445

APPL-DATE: April 28, 2000

INT-CL (IPC): B41 J 2/32; B41 M 5/26; B41 M 5/40

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide an imaging method in which a high resolution image having good image quality and no reverse, and a transfer image having a good color tone can be formed without providing a transfer material or an image receiving material with a cushion layer.

SOLUTION: The coloring material layer side of a transfer material comprising a translucent support, a translucent conductive layer, a photothermal conversion layer and a coloring material layer is charged by corona discharge and superposed on the image receiving layer side of an image receiving material comprising a support and an image receiving layer. Laser light is then irradiated imagewise from the transfer material side and the coloring material layer of transfer material is transferred to the surface of the image receiving layer thus forming an image on the surface of the image receiving layer.

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L3: Entry 3 of 3

File: DWPI

Oct 1, 2002

DERWENT-ACC-NO: 2002-413837

DERWENT-WEEK: 200268

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TITLE: Formation of image involves transferring image from transfer material into image-receiving material surface using laser light

INVENTOR: HATAKEYAMA, A; KAWAGOE, S ; KONNO, T ; MIYAKE, K ; WACHI, N

## PATENT-ASSIGNEE:

ASSIGNEE

FUJI PHOTO FILM CO LTD

HATAKEYAMA A

KAWAGOE S

KONNO T

MIYAKE K

WACHI N

CODE

FUJF

HATAI

KAWAI

KONNI

MIYAI

WACHI

PRIORITY-DATA: 2000JP-0150875 (May 23, 2000), 2000JP-0129445 (April 28, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6458504 B2	October 1, 2002		000	G03F007/34
US 20020009664 A1	January 24, 2002		026	G03F007/34
JP 2001310491 A	November 6, 2001		010	B41J002/32
JP 2001328287 A	November 27, 2001		018	B41J002/32

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6458504B2	April 27, 2001	2001US-0842629	
US20020009664A1	April 27, 2001	2001US-0842629	
JP2001310491A	April 28, 2000	2000JP-0129445	
JP2001328287A	May 23, 2000	2000JP-0150875	

INT-CL (IPC): B41 J 2/32; B41 J 31/00; B41 J 31/05; B41 M 5/26; B41 M 5/40; G03 F 3/10; G03 F 7/34; G03 F 7/38; G03 F 9/00

ABSTRACTED-PUB-NO: US 6458504B

## BASIC-ABSTRACT:

NOVELTY - An image is formed by transferring an image from a transfer material into a surface of an image-receiving material using laser light.

DETAILED DESCRIPTION - Formation of an image involves charging, by corona discharge, a coloring material layer surface of a transfer material, which has at least a light-transmissive support, a light-transmissive electro-conductive layer, a light-heat exchange layer and a coloring material layer. An image-receiving layer which has at least a support and an image-receiving material, is superposed with the coloring

material layers surface. A laser light is imagewisely irradiated into the transfer material, transferring an irradiated portion of the coloring material layer of the transfer material to the image-receiving layer surface, for forming the image.

USE - For forming an image, e.g. monochromic image and multi-color image.

ADVANTAGE - The method forms image having high resolution, high quality, and good color tones, without parts missing from the image, even if a transfer material and a image-receiving material are not provided with a cushion layer. It also forms images with stable transfer density on an image-receiving sheet.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the image-forming method of the invention.

ABSTRACTED-PUB-NO:

US20020009664A

EQUIVALENT-ABSTRACTS:

NOVELTY - An image is formed by transferring an image from a transfer material into a surface of an image-receiving material using laser light.

DETAILED DESCRIPTION - Formation of an image involves charging, by corona discharge, a coloring material layer surface of a transfer material, which has at least a light-transmissive support, a light-transmissive electro-conductive layer, a light-heat exchange layer and a coloring material layer. An image-receiving layer which has at least a support and an image-receiving material, is superposed with the coloring material layers surface. A laser light is imagewisely irradiated into the transfer material, transferring an irradiated portion of the coloring material layer of the transfer material to the image-receiving layer surface, for forming the image.

USE - For forming an image, e.g. monochromic image and multi-color image.

ADVANTAGE - The method forms image having high resolution, high quality, and good color tones, without parts missing from the image, even if a transfer material and a image-receiving material are not provided with a cushion layer. It also forms images with stable transfer density on an image-receiving sheet.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the image-forming method of the invention.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS: FORMATION IMAGE TRANSFER IMAGE TRANSFER MATERIAL IMAGE RECEIVE MATERIAL SURFACE LASER LIGHT

DERWENT-CLASS: G05 P75 P84 T04

CPI-CODES: G05-F01;

EPI-CODES: T04-G03B; T04-G07;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2002-116898

Non-CPI Secondary Accession Numbers: N2002-325277

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L2: Entry 1 of 2

File: JPAB

Nov 27, 2001

PUB-NO: JP02001328287A  
DOCUMENT-IDENTIFIER: JP 2001328287 A  
TITLE: MULTICOLOR IMAGING METHOD

PUBN-DATE: November 27, 2001

## INVENTOR-INFORMATION:

NAME

COUNTRY

WACHI, NAOTAKA

MIYAKE, KAZUHIITO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP2000150875

APPL-DATE: May 23, 2000

INT-CL (IPC): B41 J 2/32; B41 J 31/00; B41 J 31/05; G03 F 3/10

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a multicolor imaging method in which an image having good image quality and stabilized transfer density can be obtained even when laser recording is performed using high energy laser light of multibeam two-dimensional arrangement under different temperature and humidity conditions.

SOLUTION: An image receiving sheet having an image receiving layer, and four kinds of thermal transfer sheet of yellow, magenta, cyan and black having at least a photothermal conversion layer and an imaging layer on a support are used. The multicolor imaging method comprises a step for superposing the imaging layer of each thermal transfer sheet and the image receiving layer of the image receiving sheet oppositely and irradiating it with laser light of multibeam two-dimensional arrangement from the support side of the thermal transfer sheet to transfer the region of the imaging layer irradiated with laser light onto the image receiving layer of the image receiving sheet thus recording an image. The imaging layer of a black thermal transfer sheet is thicker than the imaging layer of yellow, magenta and cyan thermal transfer sheets and the thickness is in the range of 0.5-0.7

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L2: Entry 1 of 2

File: JPAB

Nov 27, 2001

PUB-NO: JP02001328287A  
DOCUMENT-IDENTIFIER: JP 2001328287 A  
TITLE: MULTICOLOR IMAGING METHOD

PUBN-DATE: November 27, 2001

## INVENTOR-INFORMATION:

NAME

COUNTRY

WACHI, NAOTAKA

MIYAKE, KAZUHITO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP2000150875

APPL-DATE: May 23, 2000

INT-CL (IPC): B41 J 2/32; B41 J 31/00; B41 J 31/05; G03 F 3/10

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a multicolor imaging method in which an image having good image quality and stabilized transfer density can be obtained even when laser recording is performed using high energy laser light of multibeam two-dimensional arrangement under different temperature and humidity conditions.

SOLUTION: An image receiving sheet having an image receiving layer, and four kinds of thermal transfer sheet of yellow, magenta, cyan and black having at least a photothermal conversion layer and an imaging layer on a support are used. The multicolor imaging method comprises a step for superposing the imaging layer of each thermal transfer sheet and the image receiving layer of the image receiving sheet oppositely and irradiating it with laser light of multibeam two-dimensional arrangement from the support side of the thermal transfer sheet to transfer the region of the imaging layer irradiated with laser light onto the image receiving layer of the image receiving sheet thus recording an image. The imaging layer of a black thermal transfer sheet is thicker than the imaging layer of yellow, magenta and cyan thermal transfer sheets and the thickness is in the range of 0.5-0.7

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L4: Entry 1 of 2

File: JPAB

Dec 26, 2000

PUB-NO: JP02000355177A

DOCUMENT-IDENTIFIER: JP 2000355177 A

TITLE: THERMAL TRANSFER MATERIAL AND METHOD FOR LASER THERMAL TRANSFER RECORDING

PUBN-DATE: December 26, 2000

## INVENTOR-INFORMATION:

NAME

COUNTRY

TAKAHASHI, YONOSUKE

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP11167406

APPL-DATE: June 14, 1999

INT-CL (IPC): B41 M 5/40; B41 M 5/26

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a thermal transfer material capable of rapidly forming an image having a high definition and a high image quality by a high output laser with excellent adhesive properties to a thermal transfer material by rapidly vacuum evacuating at the time of laser thermal transfer recording and provide further a method for laser thermal transfer recording.

SOLUTION: In the thermal transfer material comprising a photothermal conversion layer and an image forming layer on a support, Smooster value of a surface of the forming layer is 2 mmHg or below, and a centerline mean surface roughness Ra is 0.03 to 0.2

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L2: Entry 2 of 2

File: JPAB

Nov 6, 2001

PUB-NO: JP02001310491A  
DOCUMENT-IDENTIFIER: JP 2001310491 A  
TITLE: IMAGING METHOD

PUBN-DATE: November 6, 2001

## INVENTOR-INFORMATION:

NAME

COUNTRY

KONNO, TAKESHI

HATAKEYAMA, AKIRA

KAWAGOE, SHIGEKI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP2000129445

APPL-DATE: April 28, 2000

INT-CL (IPC): B41 J 2/32; B41 M 5/26; B41 M 5/40

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide an imaging method in which a high resolution image having good image quality and no reverse, and a transfer image having a good color tone can be formed without providing a transfer material or an image receiving material with a cushion layer.

SOLUTION: The coloring material layer side of a transfer material comprising a translucent support, a translucent conductive layer, a photothermal conversion layer and a coloring material layer is charged by corona discharge and superposed on the image receiving layer side of an image receiving material comprising a support and an image receiving layer. Laser light is then irradiated imagewise from the transfer material side and the coloring material layer of transfer material is transferred to the surface of the image receiving layer thus forming an image on the surface of the image receiving layer.

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File: JPAB

Nov 27, 2001

PUB-NO: JP02001328287A  
DOCUMENT-IDENTIFIER: JP 2001328287 A  
TITLE: MULTICOLOR IMAGING METHOD

PUBN-DATE: November 27, 2001

## INVENTOR-INFORMATION:

NAME

COUNTRY

WACHI, NAOTAKA

MIYAKE, KAZUHITO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

FUJI PHOTO FILM CO LTD

APPL-NO: JP2000150875

APPL-DATE: May 23, 2000

INT-CL (IPC): B41 J 2/32; B41 J 31/00; B41 J 31/05; G03 F 3/10

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a multicolor imaging method in which an image having good image quality and stabilized transfer density can be obtained even when laser recording is performed using high energy laser light of multibeam two-dimensional arrangement under different temperature and humidity conditions.

SOLUTION: An image receiving sheet having an image receiving layer, and four kinds of thermal transfer sheet of yellow, magenta, cyan and black having at least a photothermal conversion layer and an imaging layer on a support are used. The multicolor imaging method comprises a step for superposing the imaging layer of each thermal transfer sheet and the image receiving layer of the image receiving sheet oppositely and irradiating it with laser light of multibeam two-dimensional arrangement from the support side of the thermal transfer sheet to transfer the region of the imaging layer irradiated with laser light onto the image receiving layer of the image receiving sheet thus recording an image. The imaging layer of a black thermal transfer sheet is thicker than the imaging layer of yellow, magenta and cyan thermal transfer sheets and the thickness is in the range of 0.5-0.7

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